Enhancing the quality of life through improved oral health.

The Future of American Dental Education and Research

September 27, 2010

David C. Sarrett, DMD, MS
Associate Vice President for Health Sciences & Interim Dean
President, Dental Faculty Practice Association
My thoughts about predicting the future

• Risky at the best, foolish at the worst
• Reactions to your predictions
  – Discarded because they know you are guessing
  – Discarded because they have themselves cling to their own misguided guesses
  – Fortunately people have short memories
  – Claim your predictions are akin to a scientific hypothesis – sounds better than a guess
• Later brag if you are correct or stay silent if your predictions turn out to be bogus
“It’s tough to make predictions, especially about the future.”

Yogi Berra
My approach to designing this presentation

- Assume the future will be determined by the influencers of today and
- The today’s current key issues?
- Multifactorial with many interactions among variables
  - Future students
  - Future faculty
  - Organized Dentistry
  - Government
  - Foreign countries
  - The economy and financing models
  - Science and technology
Future Students

• Beloit College Mindset List of characteristics of college freshmen
  – Class of 2014
  – 75 statements on the list – 20 relevant to dentistry

• Kansas State University class on YouTube
  – Students examined their behaviors
  – 4M viewings
  – [http://www.youtube.com/watch?v=dGCJ46vyR9o](http://www.youtube.com/watch?v=dGCJ46vyR9o)
KSU class video

- Other sources for learning than our structured material
- Do not like sitting in class – online then also
- Multitaskers
- Multiple learning styles

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>7</td>
</tr>
<tr>
<td>TV watching</td>
<td>1.5</td>
</tr>
<tr>
<td>Online</td>
<td>3.5</td>
</tr>
<tr>
<td>Listening to music</td>
<td>2.5</td>
</tr>
<tr>
<td>Talking on cell phone</td>
<td>2</td>
</tr>
<tr>
<td>Attending class</td>
<td>3</td>
</tr>
<tr>
<td>Eating</td>
<td>2</td>
</tr>
<tr>
<td>Studying</td>
<td>3</td>
</tr>
<tr>
<td>Working</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26.5</strong></td>
</tr>
</tbody>
</table>
http://www.youtube.com/watch?v=mucjFYXhwXQ&feature=related
Composite Restoration

http://www.youtube.com/watch?v=UxzZyrX2Q_w&feature=related
Heart Anatomy

http://www.youtube.com/watch?v=QsdGnXbp1zU
Human dissection
Predictions

• 1 - “50 in 5”
  – 50% less lecture hours in five years
• 2 - Learning happens everywhere from preferred sources which will not always be the local faculty
• 3 - More students with disabilities entering dental school
• 4 – Little tolerance for poor quality education at high prices, schools will need to partner to provide the best teaching that exists (instructional consortiums)
Future Faculty Members - Research

• NIDCR website quote
  – “NIDCR has expanded its research support portfolio to address these complex interactions in the genesis of oral, dental and craniofacial diseases and disorders. The growth in the scientific areas of interest has been accompanied by a parallel shift in research emphasis from traditional disciplines to new approaches involving molecular medicine and other tools of modern biomedical research. The areas of scientific opportunity include genomics, proteomics, stem cell biology, biomimetics and bioengineering, pharmacogenetics, gene transfer and gene therapy, clinical genetics and molecular epidemiology, cell engineering and bioinformatics. These areas of scientific opportunity require not only an appropriate research infrastructure, but also cross-disciplinary interactions between investigators with solid skills and competencies in new and expanding areas of science.”
Future Faculty Members - Research

• Very few US dental schools are able to compete in these science areas
  – New dental schools not in research intensive institutions
• We need to move from dependence on research only applicable to two diseases – caries and periodontal disease
• Broader collaboration outside of dentistry
• Prediction :
  • 5 – Dental schools will seek research faculty from other health sciences, engineering, public health, and information sciences
Future Faculty Members - Clinical

• New graduates will be interested in an academic career when we:
  – Make the dental school experience more educationally thrilling
  – Brand schools as faculty incubators by mentoring and growth opportunities
  – Help with loan repayment
  – Have a competitive compensation structure
Future Faculty Members - Clinical

• Second career private practitioners ready for a change but still need or want to work
  – In 2006 survey over 40% of practice owners were over 55
  – More dentists leaving practice than graduating from dental school today due to 1970-80’s artificially inflated number of graduates (over 5000 then to 4000 now)
Predictions

• 6 – Without significant incentives, dental schools will continue to be challenged in recruiting new graduates to faculty positions unless the private practice world becomes less attractive

• 7 – The age of the clinical faculty will continue to increase as second career private practitioners enter the faculty ranks

• 8 – Integration of the “new science” research faculty and clinical faculty should improve dental curricula by better integration of basic and clinical sciences
Influence of Organized Dentistry (ADA, VDA, RDS)

• Scope of practice
• Integration in the larger health care system
• ADA market share and speaking for dentistry
  – 70% or 157,000 dentists but declining
  – Our advantage over medicine (80/20)
  – Institute for the Future ADA Environmental Scan 2009
• ADA can be more powerful on behalf of dental education issues than ADEA
• But the top ten reasons for being a member of the ADA from its website ignores dental education (except CE)
Influence of Organized Dentistry – Going to battle

EDITORIAL

Lessons learned
Implications for workforce change

Demand for oral health care is forecasted to increase dramatically over the next decade, and there are great concerns that the current model of service delivery will not address the need adequately. Disparities in service delivery leave an increasing segment of the population with limited or no access to dental care. The social and financial effect of these shortages has far-reaching consequences and calls for a restructuring of oral health care delivery.

Three types of allied oral health care professionals are being considered and are supported by different organizations and stakeholders—the Community Dental Health Coordinator (the American Dental Association); Advanced Dental Hygiene Practitioner (the American Dental Hygienists’ Association) and Dental Health Aide Therapist (the Community Health Aide Program). The proposed

It is the responsibility of our professional organizations to define the new role of dentists and not let it be dictated by other stakeholders. A proactive effort is needed before we are told what to do.

O.T. Wendel, PhD
Michael Glick, DMD
Editor
Influence of Organized Dentistry – Going to battle

COMMENTARY

A MESSAGE FROM ADA PRESIDENT FELDMAN

I read with interest the March JADA editorial co-authored by my friend and colleague, Dr. Michael Glick, along with Dr. O.T. Wendel, “Lessons Learned: Implications for Workforce Change” (JADA 2008;139[3]: 232, 234). Editorials are best when they provoke deep thinking and meaty discussion, and it’s clear that this editorial did just that. I feel that it’s important care that they promise. The bottom line is that the issues surrounding the access to care dilemma are complex and multifaceted and will not be solved by anyone with a singular focus on a narrow and highly polarizing workforce “solution.”

Mark J. Feldman, DMD
President
American Dental Association
Chicago

We should three emergent oral health providers them into to maximize a more effective workforce chart structure is forecast to increase decade, and there are model of service delivery; disparities in segment of the population. The social and financial consequences and calls for every care professional are present organizations and high Coordinator (the American Dental Association); Advanced Dental Hygiene Practitioner (the American Dental Hygienists’ Association) and Dental Health Aide Therapist (the Community Health Aide Program). The proposed organizations to define the new role of dentists and not let it be dictated by other stakeholders. A proactive effort is needed before we are told what to do.

O.T. Wendel, PhD
Michael Glick, DMD
Editor
As the dental profession debates its own issues regarding costs and access to care, the dental workforce and dental education, so too are the other health professions. We would suggest that most of our dental workforce is, at best, only casually familiar with how our sister professions examine their own educational requirements, workforce demands and scope-of-practice issues. We argue that dental patients and dentistry will benefit by being fully engaged in a process to remake the U.S. health care system.
In summary, as a profession, dentistry has much to offer in redesigning the health care system to control costs and to increase access to and quality of care. Dentists should not stand on the sidelines. We should encourage a national emphasis on disease prevention beyond oral disease and actively join discussions on the form and function of the entire health care system. We should increase our linkages with other professional associations and educational groups for the purpose of improving the coordination among health care providers to improve health outcomes and lower costs.

Most importantly, we need to pay attention to the entire scope of health care delivery and education of the health care workforce for what we can learn and apply to dentistry. Our patients and our profession will benefit. If we remain on the fringes of the debate—rather than being fully engaged—policy decisions will cause the services we offer to slip among health care priorities.

Dr. Sarrett is the associate vice president for health sciences and a professor of dentistry, Virginia Commonwealth University, Richmond. He also is a practicing general dentist and an associate editor of The Journal of the American Dental Association. Address reprint requests to Dr. Sarrett at Virginia Commonwealth University, Stephen Putney House, 302, 1012 E. Marshall St., P.O. Box 980549, Richmond, Va. 23298-0549, e-mail “dcsarrett@vcu.edu”.

Dr. Bradley is a professor of health administration and a co-leader, Cancer Prevention and Control, Massey Cancer Center, Virginia Commonwealth University, Richmond.
Influence of Organized Dentistry – Going to battle

ADA News

January 07, 2010

Association opposes Senate midlevel provider legislation

By Craig Palmer

Washington—The Association urged strong opposition to emerging health care reform legislation "that could promote the use of midlevel dental providers to perform surgical dental procedures."

“We’re in the eye of the hurricane at the moment because Congress does not return from recess until Jan. 19,” ADA President Ron Tankersley told Association members as the U.S. Senate passed a health care reform bill on a 60-39 partisan vote. “After that, we can expect a flurry of activity, so it remains critical for our members to stay in contact with their representatives and senators on these critical issues."
Influence of Organized Dentistry – Going to battle

January 27, 2010
Noncovered service caps legislation at issue in Virginia
By Craig Palmer

Richmond, Va.—Dentists and insurers are at odds in the commonwealth over noncovered services, each vying for public attention over legislation offered in the general assembly at Virginia Dental Association request.

"The VDA initiated this legislative action out of deep concern for our patients and the future of our profession," said Dr. Alonzo Bell, VDA president. "If insurance companies are allowed to set the fees for services they pay nothing for, it will drive up the costs of quality dental care for those who can least afford it, namely the 50 percent of Virginians who have no dental benefits."
Influence of Organized Dentistry – Going to battle

January 27, 2010
Noncovered service caps legislation at issue in Virginia
By Craig Palmer

Golden Apple Awards:

The council selected the following winners for the 2010 Golden Apple Award for Legislative Achievement:

1. **State Societies with More Than 1,000 Members**
   For states with more than 1,000 members, the Virginia Dental Association wins the Golden Apple Award for Legislative Achievement. The Virginia Dental Association withstood a belligerent opponent to its non-covered services bills by organizing an aggressive communication effort with legislators. The VDA involved both its student and practicing members in letter writing campaigns directed to their legislators, which was a vital key to mitigate effects of aggressive opposition campaigns. The bill package passed nearly unanimously.
Influence of Organized Dentistry – Predictions

• 9 – We will have a new type of mid-level provider working under direct dentist supervision completing procedures that formally only a dentist could do.

• 10 – We will have a greatly expanded public health program for oral health that includes use of a mid-level provider for screening of oral disease and facilitating access to dental office or clinics.

• 11 – These new providers will not lower the cost of delivering high quality oral health care, but create market forces to contain costs. Organized dentistry will pay more attention to dental education.

• 12 – Dentistry will continue to be pressured by the insurance industry to cut costs. Dental schools clinical facilities will be called dental offices rather than clinics. Some will be outside the main school buildings and into the community.
Influence of Government

• Health care reform legislation
  – Children: capacity & provider training
  – Institutionalized: cost and delivery methods, legal issues such as consent and risk management
  – Policy driven by deaths
  – Who pays? Do more with less does not work!
  – EHR: care quality, reduce costs, EBM/EBD
Influence of Government – Accountability and Regulation

• Industry relationships
• Stewardship of funds
• Accreditation of clinic facilities
  – CODA review every 7 years with plenty of prep time
  – Anesthesia and sedation will increase
  – Joint Commission type inspections w/o warning
  – Environmental concerns - waste
Influence of Government – NIH Budget

• Successful schools of dentistry will:
  – Develop aggressive plans
  – Interdisciplinary teams – outside the dental school and traditional dental research
  – Have significant institutional support for research
  – Take from other places

<table>
<thead>
<tr>
<th>Year</th>
<th>Appropriation</th>
<th>5-yr Change</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>17.8</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>2005</td>
<td>28.5</td>
<td>10.7</td>
<td>17.2</td>
</tr>
<tr>
<td>2010</td>
<td>31.0</td>
<td>2.5</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Nardy Casap, DMD, MD,* Alon Wexler, DMD,† and Ron Eliasbar, MD‡

Figure 6. A, The IGI handpiece navigated to one of the predetermined points along the CT-based marked tumor’s margin line. The position is then marked onto the body of the mandible. B, The CT-based tumor margin line transferred onto the body of the mandible. C, Clinical view showing the mandible after the excision of the tumor. Note the preservation of the lower border of the mandible as indicated by the CT-derived margin line.

Influence of Government – Predictions

• 13 – Dentistry will continue to be pulled into the overall health care system

• 14 – Curriculum will change by exposure of students to other health professions training
  – Simulation a great venue for this

• 15 – Research in dental schools will involve many non-dental people

• 16 – Accountability and regulations will increase
  – Clinical facilities
  – Environment: mercury
Influence of International Partners - Predictions

• 17 – Governments of developing countries will continue to seek expertise of US higher education
  – Continuum of dental education: predental, dental, advanced education, continuing education
  – Establishment of dental programs in developing countries (like Qatar)
The Economy and Financing Dental Education and Research

• Do more with more!
• Not from states
• Federal incentive programs
  – EHR
• GME for hospital-based programs
  – Pediatric dentistry and anesthesiology
• DDS cost $80-90K/year/student
• Solutions: tuition increases, increase clinical income, control costs by examining educational component costs
  – “What you measure improves”
The Economy and Financing Dental Education and Research

• Philanthropy
  – Scientific fund raising
  – Grateful patients
  – Broaden alumni base
  – Stewardship
  – Game changers

Newark Hopes Facebook Gift Translates to Results
A tarnished Newark sees glittering gold _ and failure's reflection _ in Facebook schools gift

NEWARK, N.J. September 25, 2010 (AP)

Now that Facebook founder Mark Zuckerberg has pledged $100 million to help boost Newark, N.J.'s low-performing public school system, it's time for officials to start figuring out how to use the funds.

One educator says Newark should boost pay for standout teachers and consider hiring back some of the educators laid off because of budget restraints.

Another suggests setting up virtual learning programs that let students chat with top teachers.
The Economy and Financing Dental Education and Research - Predictions

• 18 – State supported dental schools will look more like private dental schools relative to tuition and donors
• 19 – To control costs, dental schools will use principals of mission based management to create incentives to improve efficiency
• 20 – Dental schools will increase revenue from
  – Clinical service
  – International contracts
  – Continuing education curricula
Merging old science with new science
New science

Note: Images are available in Atlantis™ WebOrder for 180 days. If images will be needed after this time, please save them on your computer by right clicking over the image and selecting Save as.

Abutment design approval

- Design approval granted.
- Design is not approved. Please make the following modification(s) and resend for approval.
“The future ain’t what it used to be.”

Yogi Berra
“The future ain’t what it used to be.”

Yogi Berra

Can a running QB survive in the NFL?
Links to slides and manuscript available at:

http://www.people.vcu.edu/~dsarrett/